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      3 May 12
                 EXTEND option available in structure searching
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         May 12
                 Polymer links for the POLYLINK command completed in REGISTRY
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      5
         May 27
                 New UPM (Update Code Maximum) field for more efficient patent
                 SDIs in CAplus
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         May 27
                 CAplus super roles and document types searchable in REGISTRY
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      7
         Jun 28
                 Additional enzyme-catalyzed reactions added to CASREACT
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      8
         Jun 28
                 ANTE, AQUALINE, BIOENG, CIVILENG, ENVIROENG, MECHENG,
                 and WATER from CSA now available on STN(R)
NEWS
     9
         Jul 12
                 BEILSTEIN enhanced with new display and select options,
                 resulting in a closer connection to BABS
NEWS 10
         Jul 30
                 BEILSTEIN on STN workshop to be held August 24 in conjunction
                 with the 228th ACS National Meeting
NEWS 11
         AUG 02
                 IFIPAT/IFIUDB/IFICDB reloaded with new search and display
NEWS 12
         AUG 02
                 CAplus and CA patent records enhanced with European and Japan
                 Patent Office Classifications
                 STN User Update to be held August 22 in conjunction with the
NEWS 13
         AUG 02
                 228th ACS National Meeting
         AUG 02
                 The Analysis Edition of STN Express with Discover!
NEWS 14
                 (Version 7.01 for Windows) now available
NEWS 15
         AUG 04
                 Pricing for the Save Answers for SciFinder Wizard within
                 STN Express with Discover! will change September 1, 2004
NEWS EXPRESS
              JULY 30 CURRENT WINDOWS VERSION IS V7.01, CURRENT
              MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP),
              AND CURRENT DISCOVER FILE IS DATED 11 AUGUST 2004
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Patel

=> file reg
COST IN U.S. DOLLARS

FULL ESTIMATED COST

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FILE 'REGISTRY' ENTERED AT 14:54:19 ON 24 AUG 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 American Chemical Society (ACS)

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STRUCTURE FILE UPDATES: 23 AUG 2004 HIGHEST RN 731771-88-3 DICTIONARY FILE UPDATES: 23 AUG 2004 HIGHEST RN 731771-88-3

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

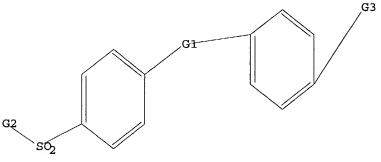
Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at: http://www.cas.org/ONLINE/DBSS/registryss.html

=>
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L1 STRUCTURE UPLOADED

=> d l1 L1 HAS NO ANSWERS L1 STR



G1 Cb, Cy, Hy

G2 N, NH, NH2, Ak

G3 Cy, Hy

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss full

FULL SEARCH INITIATED 14:54:41 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 855006 TO ITERATE

46.8% PROCESSED 400000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

63 ANSWERS

SEARCH TIME: 00.00.12

FULL FILE PROJECTIONS: ONLINE \*\*INCOMPLETE\*\*
BATCH \*\*INCOMPLETE\*\*
PROJECTED ITERATIONS: 855006 TO 855006

PROJECTED ITERATIONS:
PROJECTED ANSWERS:

855006 TO 855006 100 TO 168

L2

63 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 155.42 155.63

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 14:54:59 ON 24 AUG 2004 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2004 AMERICAN CHEMICAL SOCIETY (ACS)

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FILE COVERS 1907 - 24 Aug 2004 VOL 141 ISS 9 FILE LAST UPDATED: 23 Aug 2004 (20040823/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 12

L3 19 L2

=> d 13 fbib hitstr abs total

- L3 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2004:303289 CAPLUS
- DN 141:54156
- TI 2,3-Diarylpyran-4-ones: a new series of selective cyclooxygenase-2
- AU Joo, Yung Hyup; Kim, Jin Kwan; Kang, Seon-Hwa; Noh, Min-Soo; Ha, Jun-Yong; Choi, Jin Kyu; Lim, Kyung Min; Chung, Shin
- CS Pharmaceutical & Health Research Institute, Drug Discovery, AmorePacific Corporation R&D Center, Kyounggi-do, 449-729, S. Korea
- SO Bioorganic & Medicinal Chemistry Letters (2004), 14(9), 2195-2198 CODEN: BMCLE8; ISSN: 0960-894X
- PB Elsevier Science B.V.

DT Journal

LA English

IT 708244-51-3P 708244-72-8P

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of 2,3-diarylpyran-4-ones as cyclooxygenase-2 inhibitors and oral antiinflammatory agents)

RN 708244-51-3 CAPLUS

CN 4H-Pyran-4-one, 3-[1,1'-biphenyl]-4-yl-5-chloro-2-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)

RN 708244-72-8 CAPLUS

CN 4H-Pyran-4-one, 5-chloro-3-(2-fluoro[1,1'-biphenyl]-4-yl)-2-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)

AB A new series of cyclooxygenase-2 (COX-2) inhibitors with  $\gamma$ -pyrone as central scaffold unit has been synthesized and their biol. activities were evaluated against cyclooxygenase inhibitory activity. The changes of phys. properties of the mols. were performed according to the medicinal chemical principles and moderate oral antiinflammatory activity was obtained with this series of inhibitors.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

<8/24/2004>

Patel

```
AN 2004:182828 CAPLUS
DN 140:217657
TI Preparation of N-(4
pest control agents
IN Mita, Takeshi; Kudo
```

Preparation of N-(4-heterocyclylphenyl)phthalic acid diamide compounds as pest control agents

IN Mita, Takeshi; Kudo, Yoshihiro; Mizukoshi, Takashi; Hotta, Hiroyasu; Maeda, Kazushige; Takii, Shinji

PA Nissan Chemical Industries, Ltd., Japan

SO PCT Int. Appl., 634 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

FAN.	PATENT NO.					אדאום האידו			APPLICATION NO.						DATE			
	FAIENT NO.					KIND DATE			AFFEICATION NO.					DAIL				
ΡI	WO 2004018410			A1 20040304			WO 2003-JP10708					20030825						
	W :	ΑE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	ΒZ,	CA,	CH,	CN,	
		co,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
		GM,	HR,	HU,	ID,	IL,	IN,	IS,	ΚE,	KG,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,	
		LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,	PG,	PH,	
		PL,	PT,	RO,	RU,	SC,	SD,	SE,	SG,	SK,	SL,	SY,	ТJ,	TM,	TN,	TR,	TT,	
		TZ,	UA,	ŪĠ,	US,	UZ,	VC,	VN,	YU,	ZA,	ZM,	ZW,	AM,	ΑZ,	BY,	KG,	KZ,	
		MD,	RU,	TJ,	TM													
	RW:	GH,	GM,	KΕ,	LS,	MW,	ΜZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	ΑT,	BE,	BG,	
		CH,	CY,	CZ,	DE,	DK,	EE,	ES,	FI,	FR,	GB,	GR,	HU,	ΙE,	IT,	LU,	MC,	
		NL,	PT,	RO,	SE,	SI,	SK,	TR,	BF,	ВJ,	CF,	CG,	CI,	CM,	GA;	GN,	GQ,	
		GW,	ML,	MR,	ΝE,	SN,	TD,	TG										
										JP 2	002-	2446	19	, i	A 2	0020	826	
									JP 2002-281294						A 2	0020	926	
									,	JP 2	002-	3449	87	7	A 2	20021128		
										JP 2	003-	8337	1	i	A 2	20030325		
										JP 2	003-	1820	13	7	A 2	0030	626	

OS MARPAT 140:217657

### IT 666746-24-3P

RL: AGR (Agricultural use); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-(4-heterocyclylphenyl)phthalic acid diamide compds. as pest control agents such as insecticides and acaricides)

RN 666746-24-3 CAPLUS

CN 1H-Isoindole-1,3(2H)-dione, 2-[4-[4,5-dihydro-3-[4-(methylsulfonyl)phenyl]-5-(trifluoromethyl)-5-isoxazolyl]-2-methylphenyl]-4-nitro- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & Me \\ \hline \\ NO_2 & O-N \\ \hline \\ O & S-Me \\ \hline \\ O & O-N \\ \hline \end{array}$$

GΙ

AB 4'-Heterocyclylbenzanilides [I; G = 5- or 6-membered nonarom. heterocyclyl containing at least one atom selected from O, S, and N and at least one double bond, 5- or 6-membered saturated heterocyclyl containing 2 atoms selected from O,

Ι

S, and N, 3- to 6-membered cycloalkyl; W1, W2 = O, S; X = halo, cyano, NO2, N3, -SCN, SF5, each (un)substituted C1-6 alkyl, C3-8 cycloalkyl, C2-6 alkenyl, C2-6 alkynyl, or OH, C3-8 cycloalkenyl, C3-8 halocycloalkenyl, SH, etc.; Y = halo, cyano, NO2, N3, -SCN, SF5, each (un)substituted C1-6 alkyl, C3-8 cycloalkyl, Ph, OH, or NH2, SH, etc.; R1, R2, R3 = H, cyano, each (un)substituted C1-12 alkyl, C3-12 cycloalkyl, C3-12 alkenyl, C3-12 alkynyl, PhO, phenyl-C1-4 alkoxy, PhS, or Ph, C3-12 cycloalkenyl, C3-12 halocycloalkenyl, C1-6 alkylthio, C1-6 haloalkylthio, etc.; R4 = H, halo, cyano, each (un)substituted C1-6 alkyl, C1-6 haloalkyl, C3-8 cycloalkyl, Ph, or OH, C3-6 alkenyl, C3-6 haloalkenyl, C3-6 alkynyl, C3-6 haloalkyl, 1-naphthyl, 2-naphthyl, etc.; R5 = H, halo, cyano, each (un)substituted C1-6 alkyl, C1-6 haloalkyl, C3-8 cycloalkyl, C3-6 haloalkynyl, etc.; R6 = H, halo, cyano, each (un)substituted C1-6 alkyl, C1-6 haloalkyl, C3-8 cycloalkyl, C3-8 halocycloalkyl, C3-8 cycloalkyl, C3-8 halocycloalkyl, c3-8 cycloalkyl, C3-8 halocycloalkyl, or Ph, C1-6 alkoxy, C1-6 haloalkoxy, 1-naphthyl, 2-naphthyl, etc.; m, n = an integer of 0-4; p = an integer of 0-9] or salts thereof. Also disclosed is a novel agricultural chemical, especially

an insecticide or acaricide containing the compound I as the active ingredient. For example, N1-[4-[3-(4-fluorophenyl)-5-trifluoromethyl-4,5-dihydroisoxazol-5-yl]-2-methylphenyl]-3-nitro-N2-isopropylphthaldiamide and N1-[4-[6-(4-chlorophenyl)-2-methyl-4-trifluoromethyl-3,4-dihydropyrimidin-4-yl]-2-methylphenyl]-3-iodo-N2-isopropylphthaldiamide at 100 ppm controlled ≥80% 2nd instar larvae of Spodoptera litura on cabbage leaves.

RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2003:836766 CAPLUS
- DN 139:350731
- TI Preparation of 1-phenyl-1H-pyrazoles for inducing apoptosis in proliferating cells
- IN Chen, Ching-shin; Song, Xueqin; Lin, Ho-pi
- PA The Ohio State University Research Foundation, USA

Patel <8/24/2004>

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10771861.6Page 7
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SO
    PCT Int. Appl., 83 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                        KIND
                               DATE
                                           APPLICATION NO.
                                                                  DATE
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                                                                   _____
                                                                   20030408
PΙ
    WO 2003086287
                         A2
                               20031023
                                           WO 2003-US10738
    WO 2003086287
                         Α3
                               20040325
            AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
             PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT,
            TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ,
            MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
            CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
            NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
            GW, ML, MR, NE, SN, TD, TG
                                           US 2002-370664P
                                                               P 20020408
    US 2003236294
                                           US 2003-409502
                         A1
                               20031225
                                                                   20030408
                                           US 2002-370664P
                                                               P 20020408
OS
    MARPAT 139:350731
IT
    618068-95-4P 618068-99-8P 618069-00-4P
     618069-08-2P 618069-09-3P 618069-10-6P
     618069-11-7P 618069-12-8P 618069-13-9P
     618069-14-0P 618069-15-1P
    RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
     (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
        (antiproliferative agent; preparation of 1-Ph-1H-pyrazoles for inducing
       apoptosis in proliferating cells)
RN
    618068-95-4 CAPLUS
CN
    Benzenesulfonamide, 4-[3-(trifluoromethyl)-5-[4'-(trifluoromethyl)[1,1'-
    biphenyl]-4-yl]-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)
```

RN 618068-99-8 CAPLUS
CN Benzenesulfonamide, 4-[5-[1,1'-biphenyl]-4-yl-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

RN 618069-00-4 CAPLUS
CN Benzenesulfonamide, 4-[5-(3',5'-dichloro[1,1'-biphenyl]-4-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

RN 618069-08-2 CAPLUS
CN Benzenesulfonamide, 4-[5-(4'-butyl[1,1'-biphenyl]-4-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

RN 618069-09-3 CAPLUS

Patel

CN Benzenesulfonamide, 4-[5-(4'-methyl[1,1'-biphenyl]-4-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

RN 618069-10-6 CAPLUS

CN Benzenesulfonamide, 4-[5-(4'-azido[1,1'-biphenyl]-4-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

RN 618069-11-7 CAPLUS

CN Benzenesulfonamide, 4-[5-[4'-(azidomethyl)[1,1'-biphenyl]-4-yl]-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

$$O = S - NH_2$$
 $CH_2 - N_3$ 
 $F_3C$ 

RN 618069-12-8 CAPLUS
CN Benzenesulfonamide, 4-[5-(4'-c

Benzenesulfonamide, 4-[5-(4'-chloro[1,1'-biphenyl]-4-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

$$O = S - NH_2$$
 $N = S - NH_2$ 
 $N = S - NH_2$ 
 $N = S - NH_2$ 
 $N = S - NH_2$ 

RN 618069-13-9 CAPLUS

CN Benzenesulfonamide, 4-[5-(2',3'-dichloro[1,1'-biphenyl]-4-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

RN 618069-14-0 CAPLUS

CN Benzenesulfonamide, 4-[5-(3',5'-dimethyl[1,1'-biphenyl]-4-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

RN 618069-15-1 CAPLUS

CN Benzenesulfonamide, 4-[5-(2',4',5'-trichloro[1,1'-biphenyl]-4-yl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

GI

$$R^2$$
 $N-N$ 
 $N-N$ 
 $R^3$ 
 $R^3$ 

Title compds. I [wherein R1 = carboxamido; R2 = (halo)alkyl; Ar = AB (un) substituted Ph biphenyl, naphthyl, anthryl, phenanthrenyl, or fluorenyl; and pharmaceutically acceptable salts thereof] were prepared and tested for their effects on cyclooxygenase-2 (COX-2) activity, the viability of human prostate cancer PC-3 cells, and their ability to induce apoptosis in these cells. For example, Claisen condensation of 2-acetylphenanthrene with Et trifluoroacetate in the presence of NaH afforded the 1,3-keto-enol derivative (95%). Reaction with (4-sulfamoylphenyl) hydrazine ● HCl in EtOH gave 4-[5-(2-phenanthrenyl)-3-(trifluoromethyl)-1H-pyrazol-1-yl]benzenesulfonamide (II) in 65% yield. structure-activity anal. of derivs. of the COX-2 inhibitor celecoxib found no correlation between the COX-2 inhibitory and apoptosis-inducing activities. For instance, increased polarity or bulkiness of the terminal Ph ring reduced the ability of compds. to inhibit COX-2, while a certain degree of bulkiness and hydrophobicity in the substituted Ph ring was highly desirable for apoptosis induction in PC-3 cells. Thus, I are useful for inducing apoptosis in proliferating cells, particularly cancer cells, including but not limited to prostate cancer, leukemia, non-small cell lung cancer, colon cancer, CNS cancer, melanoma, ovarian cancer, renal cancer, bladder cancer, lymphoma, and breast cancer. These compds. are particularly useful in the treatment of androgen-independent cancers, including hormone-refractory prostate cancer.

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L3 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
```

AN 2003:777577 CAPLUS

DN 139:286336

TI Medicinal composition containing inhibitor of decomposition of extracellular matrix of cartilage

IN Gemba, Takefumi; Okamoto, Hiroyuki; Watanabe, Fumihiko

PA Shionogi & Co., Ltd., Japan

SO PCT Int. Appl., 101 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

		_																	
	PATENT NO.						KIND DATE			TE APPLICATION NO.						DATE			
ΡI	WO 2003080042				A1 20031002			1	WO 2	003-	20030326								
		W:	ΑE,	AG,	AL,	AM,	ΑT,	ΑU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH,	CN,	
			CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	
			GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KR,	KZ,	LC,	LK,	LR,	LS,	
			LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NI,	NO,	NZ,	OM,	PH.	

PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,

GW, ML, MR, NE, SN, TD, TG

JP 2002-87330 A 20020327

os MARPAT 139:286336

IT607719-52-8P 607719-58-4P 607719-60-8P 607719-61-9P 607719-62-0P 607719-63-1P 607719-64-2P

> RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES

(medicinal composition containing inhibitor of decomposition of extracellular matrix

of cartilage and preparation of said inhibitor)

RN607719-52-8 CAPLUS

CNL-Tryptophan, N-[[4-[5-[4-(1-pyrrolidinyl)phenyl]-2thienyl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN607719-58-4 CAPLUS

Glycine, N-[[4-[5-[4-(1-pyrrolidinyl)phenyl]-2-thienyl]phenyl]sulfonyl]-CN(9CI) (CA INDEX NAME)

RN 607719-60-8 CAPLUS
CN D-Phenylalanine, N-[[4-[5-[4-(1H-pyrrol-1-yl)phenyl]-2-thienyl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 607719-61-9 CAPLUS
CN D-Alanine, N-[[4-[5-[4-(1H-pyrrol-1-yl)phenyl]-2-thienyl]phenyl]sulfonyl](9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 607719-62-0 CAPLUS
CN D-Leucine, N-[[4-[5-[4-(1-piperidinyl)phenyl]-2-thienyl]phenyl]sulfonyl](9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 607719-63-1 CAPLUS

CN Benzeneacetic acid, 4-hydroxy- $\alpha$ -[[[4-[5-[4-(1-pyrrolidinyl)phenyl]-2-thienyl]phenyl]sulfonyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 607719-64-2 CAPLUS
CN L-Valine, N-[[4-[5-[4-(1-pyrrolidinyl)phenyl]-2-thienyl]phenyl]sulfonyl](9CI) (CA INDEX NAME)

Absolute stereochemistry.

AB A medicinal composition contains a compound represented by the general formula R6R5R4SO2W [W is R3NCH(R2)COR1, etc.; R1 is hydroxy, etc.; R2 is optionally substituted lower alkyl, etc.; R3 is hydrogen, etc.; R4 is optionally substituted arylene, etc.; R5 is a single bond, CO, etc.; and R6 is optionally substituted aryl, etc.], an optically active isomer thereof, a prodrug thereof, a pharmaceutically acceptable salt of any of these, or a solvate of any of these. Compds. of this invention in vitro

showed IC50 values of 0.00045  $\mu M$  to >10  $\mu M$  against MMP-13. Formulations are given.

RE.CNT 62 THERE ARE 62 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2003:221693 CAPLUS
- DN 138:238197
- TI Preparation of furo- and thienopyrimidines as TIE-2 and/or VEGFR-2 kinase inhibitors useful against hyperproliferative diseases
- IN Adams, Jerry Leroy; Bryan, Deborah Lynne; Feng, Yanhong; Matsunaga, Shinichiro; Maeda, Yutaka; Miyazaki, Yasushi; Nakano, Masato; Rocher, Jean-Philippe; Sato, Hideyuki; Semones, Marcus; Silva, Domingos J.; Tang, Jun
- PA Glaxosmithkline K.K., Japan; Smithkline Beecham Corporation
- SO PCT Int. Appl., 265 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.					KIND DATE				APPLICATION NO.						DATE		
PI		WO 2003022852 WO 2003022852						WO 2002-US28650						20020910				
		W:	CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EC,	EE,	ES,	FI,	GB,	GD,	GE,	CN, GH,
			LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	OM,	•
			UA,		US,			SE, VN,										
		RW:	GH,	GM,	KE,	-	-			•		•	•	•	•	•	•	BG, NL,
				SE, SN,			BF,	ВJ,	CF,		·	•	-				·	•
	EP 1425284				A2		2004	0609							P 20010911 20020910			
		R:						ES, RO,		TR,	BG,	CZ,	EE,	SK				
											US 2001-318766P WO 2002-US28650						0010: 0020:	

- OS MARPAT 138:238197
- IT 501695-52-9P, 4-Amino-5-(4-biphenylyl)-6-(4-

sulfamoylphenyl) furo [2,3-d] pyrimidine

RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of furo- and thienopyrimidines as TIE-2 and/or VEGFR-2 kinase inhibitors useful against hyperproliferative diseases)

RN 501695-52-9 CAPLUS

CN Benzenesulfonamide, 4-(4-amino-5-[1,1'-biphenyl]-4-ylfuro[2,3-d]pyrimidin-6-yl)- (9CI) (CA INDEX NAME)

GΙ

$$\begin{array}{c|c}
R^2 & A \\
\hline
N & X \\
R^1 & N & I
\end{array}$$

AB Furo- and thienopyrimidine derivs. (shown as I; variables defined below; e.g. 4-Amino-3-(4-methoxyphenyl)-2-[3-(methylsulfonylamino)phenyl]furo[2,3d]pyrimidine), which are useful as TIE-2 (tyrosine kinase containing immunoglobin and EGF homol. domains) and/or VEGFR-2 kinase inhibitors against hyperproliferative diseases are described herein. Enzyme inhibitions by .apprx.60 examples of I are included as ranges; also, 4-amino-3-[4-[[2-fluoro-5-(trifluoromethyl)phenyl]aminocarbonylamino]pheny 1]thieno[2,3-d]pyrimidine exhibited IC50 = 0.0018  $\mu$ M in the TIE-2 fluorescence polarization kinase activity assay. For I: X is O or S; A is H, halo, C1-C6 alkyl, aryl, heteroaryl, aryl or heteroaryl substituted with  $\geq 1$  R3, heterocyclyl, -RR3, -C(0)OR4, -C(0)NR5R6, -C(0)R4; D is H, halo, C1-C6 alkyl, aryl, heteroaryl, aryl or heteroaryl substituted with ≥1 R3, heterocyclyl, -RR3, -C(0)OR4, -C(0)NR5R6, or -C(0)R4.
R is C1-C6 alkylene, C3-C7 cycloalkylene, C1-C6 alkenylene, or C1-C6 alkynylene; R1 is H, C1-C6 alkyl, C1-C6 alkoxy, -SR4, -S(0)2R4, -NR7R7, -NR'N R'''R'''', -N(H)RR3, -C(O)OR7, or -C(O)NR7R7. R2 is H, -OH, -NR7R7 or :NH; R3 is halo, C1-C6 alkyl, C1-C6 haloalkyl, C1-C6 alkoxy, C3-C7 cycloalkoxy, C1-C6 haloalkoxy, aryl, aralkyl, aryloxy, heteroaryl, heterocyclyl, -CN, -NHC(0)R4, -N(R8)HC(0)R4, -NHC(S)R4, -NR5R6, -RNR5R6, -SR4, -S(0)2R4, -RC(0)0R4, -C(0)0R4, -C(0)R4, -C(0)NR5R6, -NHS(0)2R4, -N(S(0)2R4)S(0)2R4, -S(0)2NR5R6, or -NHC(:NH)R4. R4 is H, C1-C6 alkyl, aryl, heteroaryl, heterocyclyl, -RR3, -NR'''R'''', or - NR'NR'''R'''; R5 is H, C1-C6 alkyl, C3-C7 cycloalkyl, cyanoalkyl, -R'R'', aryl, aralkyl, heteroaryl, -NHC(O)OR''', -R'NHC(O)OR''', -R'NHC(O)NR'''R''', or -R'C(O)OR'''. R6 is H, C1-C6 alkyl, C3-C7 cycloalkyl, cyanoalkyl, -R'R'', aryl, aralkyl, heteroaryl, -C(0)OR''', or -R'C(0)NR'''R'''; R7 is H, C1-C6 alkyl, aryl, or -C(0)OR'''; R8 is C1-C3 alkyl; R' is C1-C3 alkylene; R'' is heteroalkyl or NRR'''R''''; R''' is H, C1-C6 alkyl, aryl, aralkyl, heteroaryl, or C3-C7 cycloalkyl; R'''' is H, C1-C6 alkyl, aryl, heteroaryl, or C3-C7 cycloalkyl. Although the methods of preparation are not claimed, several example prepns. of I are included and characterization data is given for .apprx.480 examples of I.

L3 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2003:69769 CAPLUS

DN 138:364359

- TI Voltage-dependent formation of anion channels by synthetic rigid-rod push pull  $\beta$ -barrels
- AU Sakai, Naomi; Houdebert, David; Matile, Stefan
- CS Department of Organic Chemistry, University of Geneva, Geneva, 1211/4, Switz.
- SO Chemistry--A European Journal (2003), 9(1), 223-232 CODEN: CEUJED; ISSN: 0947-6539
- PB Wiley-VCH Verlag GmbH & Co. KGaA
- DT Journal
- LA English
- IT 406217-64-9

RL: BSU (Biological study, unclassified); BIOL (Biological study) (voltage-dependent formation of anion channels by synthetic rigid-rod push-pull  $\beta$ -barrels)

- RN 406217-64-9 CAPLUS

Absolute stereochemistry.

PAGE 1-A

$$H_2N$$
 $O$ 
 $i_1-Bu$ 
 $S$ 
 $H$ 
 $i_1-Bu$ 
 $i_1-Bu$ 

Patel

/

AΒ Ion channels formed by p-octiphenyls equipped with amphiphilic, cationic tripeptide strands and either with (5) or without (6) axial dipole moment are described (preliminary communication: N. Sakai, S. Matile, J. Am. Chemical Society 2002, 124, 1184-1185). Fluorescence kinetics with variably polarized neutral or anionic vesicles, together with planar bilayer conductance measurements, reveal voltage dependence with weakly lyotropic anion selectivity, and deactivation by competing surface potentials of the ion channels formed by asym. 5. In planar bilayers, 5 forms short-lived, poorly organized channels-similar to those produced by  $\alpha$ -helical natural antibiotics-capable of transforming into stable, ohmic p-octiphenyl " $\beta$ -barrel" ion channels similar to those of the >99% homologous but sym. 6. Fluorescence depth quenching and CD studies confirm the effect of membrane potentials in promotion of the partitioning of 5 (but not 6) into the bilayers, identifying partitioning as the voltage-dependent step.

RE.CNT 60 THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2003:22325 CAPLUS
- DN 139:6667
- TI Synthesis and fluorescence enhancement of oligophenylene-substituted calix[4] arene assemblies
- AU Wong, Man Shing; Zhang, Xiao Ling; Chen, Dong Zhong; Cheung, Wai Ho
- CS Department of Chemistry, Hong Kong Baptist University, Hong Kong, Peop. Rep. China
- SO Chemical Communications (Cambridge, United Kingdom) (2003), (1), 138-139 CODEN: CHCOFS; ISSN: 1359-7345
- PB Royal Society of Chemistry
- DT Journal
- LA English
- OS CASREACT 139:6667
- IT 536708-84-6P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation) (preparation of oligophenylene-substituted calixarene assemblies via cross-coupling reaction of oligoboronic acid and tetrahalocalixarenes and their fluorescence enhancement)

RN 536708-84-6 CAPLUS

CN Pentacyclo[19.3.1.13,7.19,13.115,19]octacosa-1(25),3,5,7(28),9,11,13(27),1 5,17,19(26),21,23-dodecaene, 25,26,27,28-tetrakis(decyloxy)-5,11,17,23-tetrakis[4''-(hexylsulfonyl)[1,1':4',1''-terphenyl]-4-yl]- (9CI) (CA INDEX NAME)

PAGE 1-A

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PAGE 2-B

PAGE 3-A

AB Tetra-oligophenylene substituted calix[4] arene assemblies containing up to three phenylene units have been synthesized by a convergent approach using Suzuki cross-coupling reaction. Their optical properties were investigated and compared with the corresponding monomer.

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2002:805629 CAPLUS
- DN 138:200393
- TI On the importance of intermediate internal charge repulsion for the synthesis of multifunctional pores
- AU Baumeister, Bodo; Som, Abhigyan; Das, Gopal; Sakai, Naomi; Vilbois, Francis; Gerard, David; Shahi, Shatrughan P.; Matile, Stefan
- CS Department of Organic Chemistry, University of Geneva, Geneva, CH-1211/4, Switz.
- SO Helvetica Chimica Acta (2002), 85(9), 2740-2753 CODEN: HCACAV; ISSN: 0018-019X
- PB Verlag Helvetica Chimica Acta
- DT Journal
- LA English
- OS CASREACT 138:200393
- IT 406217-64-9

RL: BSU (Biological study, unclassified); BIOL (Biological study) (importance of intermediate internal charge repulsion for synthesis of

multifunctional pores)
RN 406217-64-9 CAPLUS
CN L-Leucinamide, 1,1',1'',1''',1'''',1''''-[[4-methoxy-4'''''(methylsulfonyl)[1,1':4',1'':4'',1''':4''',1''':4''',1''':4''',1'''':4''',1'''':4'''',1'''':4'''',1''''hexayl]hexakis[oxy(1-oxo-2,1-ethanediyl)]]hexakis[L-leucyl-L-lysyl- (9CI)
(CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

Patel

AB Intermediate internal charge repulsion (ICR) is required to create synthetic pores with large, stable, transmembrane, and variably functionalized space. This conclusion is drawn from maximal transport and, in one case, catalytic activity of p-octiphenyl  $\beta$ -barrel pores with internal lysine, aspartate, and histidine residues around pH 7, 6, and 4.5, resp. PKa Simulations corroborate the exptl. correlation of intermediate ICR with activity and suggest that insufficient ICR causes pore "implosion" and excess ICR pore "explosion". Esterolysis expts. support the view that the formation of stable space within multifunctional p-octiphenyl  $\beta$ -barrels requires more ICR in bilayer membranes than in H2O. Multivalency effects are thought to account for p-octiphenyl  $\beta\text{-barrel}$  expansion with increasing number of  $\beta\text{-sheets},$  and proximity effects for unchanged pH profiles with increasing  $\beta$ -sheet length. Q-TOF-nano-ESI-MS barrel-denaturation expts. indicate that contributions from internal counterion effects are not negligible. The overall characteristics of p-octiphenyl  $\beta$ -barrel pores with internal lysine, aspartate, and histidine residues, unlike de novo "a-barrels" and similarly to certain biol. channels, underscore the usefulness of rigid-rod mols. to preorganize complex multifunctional supramol. architecture.

RE.CNT 102 THERE ARE 102 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2002:793608 CAPLUS

DN 137:310917

TI Aromatic-substituted thiohydantoins, their preparation, and their use for treating diabetes, dyslipidemia, and obesity

IN Boubia, Benaiessa; Chaput, Evelyne; Ou, Khan; Ratel, Philippe

PA Laboratoires Fournier SA, Fr.

SO PCT Int. Appl., 111 pp.

CODEN: PIXXD2

DT Patent

LA French

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PΙ	WO 2002081453	A1	20021017	WO 2002-FR1167	20020404

Patel

WO	2002	0814	53		C1		2002	1114									
									AZ,	BA,	BB,	BG,	BR.	BY,	BZ,	CA,	CH,
											DK,						
											ID,						
		KP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,
		MX,	ΜZ,	NO													
	RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ΖW,	AT,	BE,	CH,
		CY,	DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,
		BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	NE,	SN,	TD,	TG
									3	FR 2	001-	4552		Ĭ	A 2	00104	104
	2823				A1		2002		]	FR 2	001-	4552			2	00104	104
	2823				В1		2003										
EP	1373				A1						002-					00204	
	R:										IT,	LI,	LU,	NL,	SE;	MC,	PT,
		ΙE,	SI,	LT,	LV,	FΙ,	RO,	MK,	•	•							
											001-					00104	
											002-1		57	1		00204	
EE	2003	0048	5		Α	:	2004	0216			003-4					00204	
											001-4			_		00104	
		5051									002-1			1		00204	
JP	2004	5251	75		Т2		2004	3819			002-		11	_		00204	
											001-4			_		00104	
TTC	2004	1164	1 77		70.71		2004				002-1		_	,		00204	
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(aminosulfonyl)phenyl)-5-methyl-2-thioxo-4-imidazolidinone RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(drug candidate; preparation of aromatic-substituted thiohydantoins for treatment of diabetes, dyslipidemia, and obesity)

RN471937-21-0 CAPLUS CN

Benzenesulfonamide, 4-[4-methyl-3-[4-(4-morpholinyl)phenyl]-5-oxo-2-thioxo-1-imidazolidinyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & & & & \\ \hline & N & & & \\ \hline & N & & & \\ \hline & N & & & \\ & N & & & \\ \hline & N & & & \\ & N & & & \\ \hline & N & & & \\ & N & & & \\ & N & & & \\ \hline & N & & \\ \hline & N & & \\ \hline & N & & \\ \hline & N & &$$

GI

IT

The invention concerns compds. derived from 2-thiohydantoin, selected among compds. I [R1 = (un) substituted aromatic nucleus [substituents = halo, alkoxy, alkyl, alkylthio, NO2, CF3, OCF3, OCH2O, or (un) substituted (homo) (thio) morpholine, (homo) piperidine, (homo) piperazine, etc.]; R2 = H, alkyl or cycloalkyl [optionally interrupted by O atoms(s)], haloalkyl, alkenyl, alkynyl, hydroxyalkyl, aminoalkyl, cyanoalkyl, (un) substituted aromatic nucleus; R3 = H, alkyl; R4 = H, alkyl, OH; or R3R4 = CH2; provided that at least one of R1 and R2 is an aromatic nucleus bearing at least one (un) substituted (homo) (thio) morpholine, (homo) piperidine, (homo) piperazine, etc.] and their addition salts with acids, in particular their pharmaceutically acceptable salts. The invention also concerns methods for preparing I, pharmaceutical compns. containing them, and their use

pharmacol. active substances, in particular for treating diabetes, diseases mediated by hyperglycemia, hypertriglyceridemia, dyslipidemia, or obesity. A total of 380 invention compds. and approx. 80 intermediates were prepared and characterized. When tested orally in mice at doses below 200 mg/kg, I reduced glucose levels by up to -73%, and reduced serum triglycerides by up to -56%, with favorable changes in lipid parameters (no specific data). For instance,4-(4-morpholinyl)aniline reacted with Et 2-bromopropionate and NaOAc in EtOH to give 69% N-[4-(4-morpholinyl)phenyl]-DL-alanine Et ester. Cyclocondensation of this amino ester with 4-(isothiocyanato)anisole in refluxing toluene in the presence of AcOH gave 82.5% title compound II.

RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2002:73773 CAPLUS
- DN 136:275111
- TI Recognition of Polarized Lipid Bilayers by p-Oligophenyl Ion Channels: From Push-Pull Rods to Push-Pull Barrels
- AU Sakai, Naomi; Matile, Stefan
- CS Department of Organic Chemistry, University of Geneva, Geneva, CH-1211, Switz.
- SO Journal of the American Chemical Society (2002), 124(7), 1184-1185 CODEN: JACSAT; ISSN: 0002-7863
- PB American Chemical Society
- DT Journal
- LA English
- IT 406217-67-2P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(intermediate; preparation of p-oligophenyl push-pull  $\beta$ -barrel synthetic ion channels which recognize phosphatidylcholine bilayer membranes)

PAGE 1-B

#### IT 406217-64-9P

Absolute stereochemistry.

RN

CN

PAGE 1-B

PAGE 2-B

AΒ Design, synthesis, and evaluation of 14-methoxy-84-methylsulfonyl-22,33,42,53,62,73-hexa(Gla-Leu-Lys-Leu-NH2)-p-octiphenyl (1) and 14,84-bismethoxy-22,33,42,53,62,73-hexa(Gla-Leu-Lys-Leu-NH2)-p-octiphenyl (2) are described (Gla = -OCH2CO-). Nanomolar concns. of push-pull rod 1 are found to suffice to selectively form ion channels in polarized spherical bilayer membranes composed of egg yolk phosphatidylcholine. Exponential dependence of the ion-channel activity on membrane polarization reveals a gating charge of 0.85/channel. Independence of the activity of push-push rod 2 on membrane potential demonstrates that cell membrane recognition originates from the axial dipole in push-pull rod 1. Nonlinear concentration dependence of activity at -180 mV indicates parallel self-assembly of push-pull rod 1 into a tetrameric barrel-stave supramol. RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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10771861.6Page 33
L3
     ANSWER 11 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
AN
      2001:816659 CAPLUS
DN
     135:357924
TI
     Novel heterocyclic compounds, namely imidazole sulfones and analogs, with
      anti-inflammatory activity, their preparation, and their therapeutic use
      as cyclooxygenase 2 inhibitors
IN
     Almansa Rosales, Carmen; Gonzalez Gonzalez, Concepcion; Torres Barreda, M.
     Carmen
     J. Uriach & Cia S.A., Spain
PΑ
SO
     PCT Int. Appl., 72 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     Spanish
FAN.CNT 1
     PATENT NO.
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PΙ
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          RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
              DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
              BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
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     US 2003114456
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                                                                        W 20010423
                                                  WO 2001-ES152
OS
     MARPAT 135:357924
IT
     372107-26-1P, 4-Chloro-1-(4-methylsulfonylphenyl)-5-[4-(1-
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372107-26-1P, 4-Chloro-1-(4-methylsulfonylphenyl)-5-[4-(1pyrrolidinyl)phenyl]imidazole 372107-51-2P, 4-(4Methylsulfonylphenyl)-3-[4-(1-pyrrolidinyl)phenyl]-5H-furan-2-one
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); RCT (Reactant); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT
(Reactant or reagent); USES (Uses)

(drug candidate; preparation of imidazole sulfones and analogs as cyclooxygenase 2 inhibitors and antiinflammatories)

RN 372107-26-1 CAPLUS

CN 1H-Imidazole, 4-chloro-1-[4-(methylsulfonyl)phenyl]-5-[4-(1pyrrolidinyl)phenyl]- (9CI) (CA INDEX NAME)

RN 372107-51-2 CAPLUS
CN 2(5H)-Furanone, 4-[4-(methylsulfonyl)phenyl]-3-[4-(1-pyrrolidinyl)phenyl](9CI) (CA INDEX NAME)

372107-27-2P, 1-(4-Methylsulfonylphenyl)-5-[4-(1-ITpyrrolidinyl)phenyl]imidazole 372107-28-3P, 4-Chloro-5-[4-(3hydroxypyrrolidin-1-yl)phenyl]-1-(4-methylsulfonylphenyl)imidazole 372107-29-4P, 4-Chloro-5-[4-(2-methylpyrrolidin-1-yl)phenyl]-1-(4methylsulfonylphenyl)imidazole 372107-31-8P, 4-[4-Chloro-5-[4-(1-pyrrolidinyl)phenyl]imidazol-1-yl]benzenesulfonamide 372107-33-0P, 4-Chloro-5-[3-chloro-4-(1-pyrrolidiny1)pheny1]-1-(4methylsulfonylphenyl)imidazole 372107-35-2P, 4-Chloro-1-(4-methylsulfonylphenyl)-5-[4-(2,5-dioxopyrrolidin-1yl)phenyl]imidazole 372107-37-4P, 4-Chloro-1-(4methylsulfonylphenyl)-5-[4-(2-oxo-3-pyrrolin-1-yl)phenyl]imidazole 372107-39-6P, 4-Chloro-1-(4-methylsulfonylphenyl)-5-[4-(2oxooxazolidin-3-yl)phenyl]imidazole 372107-43-2P, 4-Chloro-1-(4-methylsulfonylphenyl)-5-[4-(2-oxopyrrolidin-1yl)phenyl]imidazole 372107-48-7P, 3-[4-(2,5-Dioxopyrrolidin-1yl)phenyl]-4-(4-methylsulfonylphenyl)-5H-furan-2-one 372107-49-8P , 4-(4-Methylsulfonylphenyl)-3-[4-(2-oxo-3-pyrrolin-1-yl)phenyl]-5H-furan-2-one 372107-52-3P, 3-[3-Chloro-4-(1-pyrrolidinyl)phenyl]-4-(4methylsulfonylphenyl)-5H-furan-2-one 372107-54-5P, 4-[5-[4-(2-0xo-3-pyrrolin-1-yl)phenyl]-3-trifluoromethyl-1H-pyrazol-1-

RN CN yl]benzenesulfonamide 372107-55-6P, 4-[5-[4-(1-Pyrrolidinyl)phenyl]-3-trifluoromethyl-1H-pyrazol-1-yl]benzenesulfonamide RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (drug candidate; preparation of imidazole sulfones and analogs as cyclooxygenase 2 inhibitors and antiinflammatories)
372107-27-2 CAPLUS
1H-Imidazole, 1-[4-(methylsulfonyl)phenyl]-5-[4-(1-pyrrolidinyl)phenyl]-(9CI) (CA INDEX NAME)

RN 372107-28-3 CAPLUS

CN 3-Pyrrolidinol, 1-[4-[4-chloro-1-[4-(methylsulfonyl)phenyl]-1H-imidazol-5-yl]phenyl]- (9CI) (CA INDEX NAME)

RN 372107-29-4 CAPLUS

CN 1H-Imidazole, 4-chloro-5-[4-(2-methyl-1-pyrrolidinyl)phenyl]-1-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)

RN 372107-31-8 CAPLUS

CN Benzenesulfonamide, 4-[4-chloro-5-[4-(1-pyrrolidinyl)phenyl]-1H-imidazol-1-yl]- (9CI) (CA INDEX NAME)

RN 372107-33-0 CAPLUS

CN 1H-Imidazole, 4-chloro-5-[3-chloro-4-(1-pyrrolidinyl)phenyl]-1-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)

RN 372107-35-2 CAPLUS

CN 2,5-Pyrrolidinedione, 1-[4-[4-chloro-1-[4-(methylsulfonyl)phenyl]-1H-imidazol-5-yl]phenyl]- (9CI) (CA INDEX NAME)

RN 372107-37-4 CAPLUS

CN 2H-Pyrrol-2-one, 1-[4-[4-chloro-1-[4-(methylsulfonyl)phenyl]-1H-imidazol-5-yl]phenyl]-1,5-dihydro- (9CI) (CA INDEX NAME)

RN 372107-39-6 CAPLUS

CN 2-Oxazolidinone, 3-[4-[4-chloro-1-[4-(methylsulfonyl)phenyl]-1H-imidazol-5-yl]phenyl]- (9CI) (CA INDEX NAME)

RN 372107-43-2 CAPLUS

CN 2-Pyrrolidinone, 1-[4-[4-chloro-1-[4-(methylsulfonyl)phenyl]-1H-imidazol-5-yl]phenyl]- (9CI) (CA INDEX NAME)

RN 372107-48-7 CAPLUS

CN 2,5-Pyrrolidinedione, 1-[4-[2,5-dihydro-4-[4-(methylsulfonyl)phenyl]-2-oxo-3-furanyl]phenyl]- (9CI) (CA INDEX NAME)

RN 372107-49-8 CAPLUS

CN 2H-Pyrrol-2-one, 1-[4-[2,5-dihydro-4-[4-(methylsulfonyl)phenyl]-2-oxo-3-furanyl]phenyl]-1,5-dihydro- (9CI) (CA INDEX NAME)

RN 372107-52-3 CAPLUS

CN 2(5H)-Furanone, 3-[3-chloro-4-(1-pyrrolidinyl)phenyl]-4-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)

RN 372107-54-5 CAPLUS

CN Benzenesulfonamide, 4-[5-[4-(2,5-dihydro-2-oxo-1H-pyrrol-1-yl)phenyl]-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

RN 372107-55-6 CAPLUS

CN Benzenesulfonamide, 4-[5-[4-(1-pyrrolidinyl)phenyl]-3-(trifluoromethyl)-1H-pyrazol-1-yl]- (9CI) (CA INDEX NAME)

GI

$$Y^2$$
 $Y^1$ 
 $Y^3$ 
 $X^2$ 
 $X^1$ 
 $X^3$ 
 $X^4$ 
 $X^4$ 
 $X^5$ 
 $X^4$ 
 $X^5$ 
 $X^6$ 
 $X^7$ 
 $X^8$ 
 $X^8$ 

Patel

The invention relates to novel heterocyclic compds. of formula I, and to AB their salts, solvates, and prodrugs [wherein: A = 5-membered unsatd. or partially unsatd. ring with 1-3 optional heteroatoms (N/O/S), optional substituent(s) R2, and adjacent aryl groups; R1 = C1-8 (halo)alkyl, NR3R4; R2 = C1-4 (halo)alkyl, halo, oxo, cyano, NO2, CHO, COCH3, CO2R3; R3 = H, C1-8 alkyl, aryl, arylalkyl; R4 = H, C1-8 alkyl, arylalkyl, COR5, CO2R5; R5 = C1-8 (halo)alkyl; all X's = CR6; or 1-3 X's = N and the remainder = CR6; R6 = H, halo, C1-3 alkyl or alkoxy; dashed bond = optional pi bond; Y1, Y4 = CR7R7 or CO; Y2 and Y3 = CR8 when doubly bonded, or CR8R8 when singly bonded; Y2 can be CO if Y1 is not; Y3 can be CO if Y4 is not; Y3 can be NR9, O, or S if Y4 is CO; R7 = H, Me, Et; R8 = H, Me, Et, OH, OMe, or halo; R9 = H or C1-4 alkyl; aryl = Ph or naphthyl optionally substituted by C1-8 (halo)alkyl, halo, cyano, NO2, OR10, alkyl-OR10, SR10, alkyl-SR10, NR10R11, NR10COR11, COR10, CO2R10; R10 = H, C1-8 alkyl, CH2Ph, R11 = C1-8 (halo)alkyl]. The compds. are selective inhibitors of cyclooxygenase 2 (COX-2), useful as anti-inflammatory agents. Nineteen examples and 8 reference examples are given. For instance, 1-(4-methylsulfonylphenyl)ethanone underwent  $\alpha$ -bromination, cyclocondensation with 4-nitrophenylacetic acid (60%), and hydrogenation at nitro (95%) to give 3-(4-aminophenyl)-4-(4-methylsulfonylphenyl)-5Hfuran-2-one. This intermediate underwent cyclization with 1,4-dibromobutane at the amino group (27%) and adjacent ring chlorination (73%) to give title compound II. In tests for inhibition of COX-1 and COX-2 activity in human cell lines, II at 0.1  $\mu M$  gave 93% inhibition of COX-2 but did not appreciably inhibit COX-1 (0%).

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L3 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
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AN 2001:816651 CAPLUS

DN 135:358158

TI Preparation of N-[4-(oxadiazol-2-yl)phenylsulfonyl]-amino acid derivatives having therapeutic or preventive efficacies against glomerular disorders

IN Shinosaki, Toshihiro; Ninomiya, Mitsuyoshi; Watanabe, Fumihiko

PA Shionogi & Co., Ltd., Japan

SO PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.				KIND DATE			APPLICATION NO.						DATE			
			<b>-</b>									<b>-</b>					
ΡI	WO 2001083464			A1 20011108			WO 2001-JP3215						20010416				
	W:	ΑE,	AG,	ΑL,	AM,	ΑT,	AU,	AZ,	BA,	BB,	BG,	BR,	BY,	BZ,	CA,	CH.	CN.
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,
		HR,	ΗU,	ID,	IL,	IN,	ıs,	JP,	ΚE,	KG,	KR,	KZ,	LC,	LK,	LR.	LS.	LT.
		LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU.
		SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	US,	UZ,	VN,
		YU,	ZA,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	TJ,	TM	-	•	•	•
	RW:	GH,												AT,	BE,	CH,	CY,
		DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
		ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG	•	•
									į.	JP 2	000-	1202	35	7	A 20	00004	121

OS MARPAT 135:358158

IT 372106-16-6P, (R)-2-[[[4-[3-(4-(Pyrrolidin-1-yl)phenyl)-1,2,4 oxadiazol-5-yl]phenyl]sulfonyl]amino]-2-benzylethanoic acid
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of [(oxadiazolyl)phenylsulfonyl]-amino acid derivs. as matrix metalloproteinase inhibitors and therapeutic or preventive agents for glomerular disorders)

RN 372106-16-6 CAPLUS

CN D-Phenylalanine, N-[[4-[3-[4-(1-pyrrolidinyl)phenyl]-1,2,4-oxadiazol-5-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

GT

$$\begin{array}{c|c}
N & O \\
R5 & \downarrow & R4 - SO_2 - N \\
R & \downarrow & COR^1 \\
R & R^3 & I
\end{array}$$

AB Pharmaceutical compns. for the treatment or prevention of glomerular disorders contain as the active ingredient compds. of the general formula [I; R1 = NHOH, OH, lower alkyloxy; R2, R3 = H, (un)substituted lower alkyl, aryl, aralkyl, heteroaryl, or heteroarylalkyl; R4 = (un)substituted arylene or heteroarylene; R5 = (un)substituted aryl, heteroaryl, or nonarom. heterocyclyl], prodrugs of the same, pharmaceutically acceptable salts of both, or solvates of them. These compds. I inhibit matrix metalloproteinase (MMP) and are safe and highly effective for the prevention or treatment of glomerular disorders, in particular glomerular nephritis and diabetic nephropathy. They are also useful for the treatment of osteoarthritis, aortic aneurysm, and diabetic retinopathy. Thus, N-sulfonylation of D-phenylalanine Me ester hydrochloride with 4-chlorosulfonylbenzoic acid in aqueous Na2CO3 at room temperature for 3 h gave N-(4-carboxyphenylsulfonyl)-L-phenylalanine Me ester which was converted into the acid chloride by treatment with oxalyl chloride in DMF at room temperature for 1 h and cyclocondensed with 4-fluorobenzamidoxime (preparation given)

in pyridine and diglyme at room temperature for 1 h and then at 110° for 3 h, followed by saponification with a mixture of 1 N aqueous NaOH and DMSO and acidification with aqueous 2 N HCl to give N-[4-[3-(4-fluorophenyl)-1,2,4-oxadiazol-5-yl]phenylsulfonyl]-D-phenylalanine. N-[4-[3-(5-chlorothiophen-2-yl)-1,2,4-oxadiazol-5-yl]phenylsulfonyl]-L-valine showed IC50 of 0.0051, 0.056, and 0.025  $\mu$ M against MMP-2, 8, and 9, resp.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

```
2001:816650 CAPLUS
AN
DN
     135:357931
     Preparation of oxadiazole derivatives as anticancer agents inhibiting
TI
IN
     Yoshioka, Takayuki; Maekawa, Ryuji; Watanabe, Fumihiko
PA
     Shionogi & Co., Ltd., Japan
SO
     PCT Int. Appl., 57 pp.
     CODEN: PIXXD2
DT
     Patent
LA
     Japanese
FAN.CNT 1
     PATENT NO.
                         KIND
                                DATE
                                            APPLICATION NO.
                                                                   DATE
                         _ _ _ _
                                ______
                                            -----
                                                                    -----
PΙ
     WO 2001083463
                          A1
                                20011108
                                            WO 2001-JP3214
                                                                    20010416
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
             HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT,
             LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU,
             SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN,
             YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
             BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                            JP 2000-120234
                                                                A 20000421
     AU 2001046916
                          Α5
                                20011112
                                            AU 2001-46916
                                                                    20010416
                                            JP 2000-120234
                                                                    20000421
                                            WO 2001-JP3214
                                                                W
                                                                   20010416
     EP 1277744
                          Α1
                                20030122
                                            EP 2001-919938
                                                                    20010416
         R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
                                            JP 2000-120234
                                                                   20000421
                                            WO 2001-JP3214
                                                                W 20010416
     BR 2001010211
                          Α
                                20030603
                                            BR 2001-10211
                                                                    20010416
                                            JP 2000-120234
                                                                   20000421
                                            WO 2001-JP3214
                                                                W 20010416
                                            ZA 2002-8307
     ZA 2002008307
                          Α
                                20031015
                                                                   20021015
                                                                A 20000421
                                            JP 2000-120234
     NO 2002005035
                                20021219
                                            NO 2002-5035
                                                                   20021018
                                                                A 20000421
                                            JP 2000-120234
                                            WO 2001-JP3214
                                                                W 20010416
     US 2003203940
                          A1
                                20031030
                                            US 2002-257917
                                                                   20021018
     US 6720343
                          B2
                                20040413
                                            JP 2000-120234
                                                                A 20000421
                                            WO 2001-JP3214
                                                                W 20010416
     US 2004122066
                          Α1
                                20040624
                                            US 2003-730946
                                                                   20031210
                                                                A 20000421
                                            JP 2000-120234
                                                                W 20010416
                                            WO 2001-JP3214
                                            US 2002-257917
                                                                A3 20021018
os
     MARPAT 135:357931
IT
     372106-16-6P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of oxadiazole derivs. as anticancer agents inhibiting MMP-2)
     372106-16-6 CAPLUS
RN
CN
     D-Phenylalanine, N-[[4-[3-[4-(1-pyrrolidinyl)phenyl]-1,2,4-oxadiazol-5-
     yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)
```

Absolute stereochemistry.

GΙ

$$R^{5}$$
 $R^{4}$ 
 $R^{4}$ 
 $R^{2}$ 
 $R^{2}$ 
 $R^{2}$ 
 $R^{2}$ 
 $R^{2}$ 
 $R^{2}$ 
 $R^{3}$ 

AB The title compds. I [R1 is hydroxyl or the like; R2 is optionally substituted lower alkyl or the like; R3 is hydrogen or the like; R4 is optionally substituted arylene or the like; and R5 is optionally substituted aryl or the like] are prepared The title compound II in vitro showed IC50 of 6 nM against MMP-2. Formulations are given.

RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2001:816648 CAPLUS
- DN 135:344729
- TI Preparation of N-thiazolylphenylsulfonylamino acid and N-oxazolylphenylsulfonylamino acid derivatives as macrophage metalloelastase inhibitors
- IN Furue, Shingo; Watanabe, Fumihiko; Tamura, Yoshinori
- PA Shionogi & Co., Ltd., Japan
- SO PCT Int. Appl., 67 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

	PATENT	NO.			KIN	D	DATE			APPL	ICAT	ION I	NO.		D	ATE	
ΡI	WO 200 W:	10834 AE,		AL,	A1 AM,		2001 AU,				 001- BG,			 вz,		0010 CH,	
		CO,	CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,

HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

JP 2000-130041 A 20000428

JP 2000-293419 A 20000927

OS MARPAT 135:344729

## IT 370597-61-8P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-thiazolylphenylsulfonylamino acid and N-oxazolylphenylsulfonylamino acid derivs. as macrophage metalloelastase inhibitors)  $\label{eq:condition}$ 

RN 370597-61-8 CAPLUS

CN D-Valine, N-[[4-[4-[4-(1-pyrrolidinyl)phenyl]-2-thiazolyl]phenyl]sulfonyl](9CI) (CA INDEX NAME)

## Absolute stereochemistry.

GΙ

AB Title compds. [I; X = O, N, S, CH; X1 = N, O; X2 = CH, S; dotted bond = single bond, double bond; R6 = (un)substituted aryl, benzofuranyl, benzothienyl; R2 = alkyl], optical isomers, prodrugs, and pharmaceutically

acceptable salts or solvates of title compds. are prepared as macrophage metalloelastase inhibitors. Thus, the title compound II was prepared and MMP-1, MMP-2, MMP-8, MMP-9, MMP-12, and MMP-13 inhibition tested.

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2001:371567 CAPLUS

DN 135:5612

TI Preparation of new pyrazolo terpyridines as remedies for inflammation, autoimmune diseases

IN Yamamoto, Hirofumi; Takahashi, Fumie; Kato, Takeshi; Nakamura, Katsuya; Manabe, Koji

PA Fujisawa Pharmaceutical Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 64 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001139575	A2	20010522	JP 1999-323692 JP 1999-323692	19991115 19991115

OS MARPAT 135:5612

IT 340322-50-1P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of new pyrazolo terpyridines as remedies for inflammation autoimmune diseases)

RN 340322-50-1 CAPLUS

CN Benzenesulfonamide, 4-[2-[4-(1-azetidinyl)phenyl]pyrazolo[1,5-a]pyridin-3-yl]- (9CI) (CA INDEX NAME)

GΙ

$$R^{1}$$
 $R^{2}$ 
 $N$ 
 $R^{3}$ 

$$H_2N$$
 $N$ 
 $N$ 
 $N$ 
 $N$ 

AB The pyrazolo terpyridine or that salt which is cyclooxygenase - 2 (COX-II) inhibitors, those production methods, the medicine composition, and the person or

the animal which contain those inflammation condition, u painfully, prevention of the autoimmune disease and / or the method of treating is offered. Below-mentioned general formula (I) [ in the formula, the R1 and the R2, the resp. hydrogen, the hydrogen, the low-grade alkyl group and the halogen et cetera, mean, R3 such as low-grade alkyl group and the cyclo (low grade) alkyl group resp. ] So the chemical compound which is displayed or that salt.

- L3 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2001:130219 CAPLUS
- DN 134:322321
- TI Electrostatics of Cell Membrane Recognition: Structure and Activity of Neutral and Cationic Rigid Push-Pull Rods in Isoelectric, Anionic, and Polarized Lipid Bilayer Membranes
- AU Sakai, Naomi; Gerard, David; Matile, Stefan
- CS Department of Organic Chemistry, University of Geneva, Geneva, CH-1211, Switz.
- SO Journal of the American Chemical Society (2001), 123(11), 2517-2524 CODEN: JACSAT; ISSN: 0002-7863
- PB American Chemical Society
- DT Journal
- LA English
- OS CASREACT 134:322321
- IT 335629-09-9P 335629-19-1P 335629-21-5P

  RL: BPR (Biological process); BSU (Biological study, unclassified); PEP (Physical, engineering or chemical process); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); PROC (Process)

(electrostatics of cell membrane recognition: structure and activity of neutral and cationic rigid push-pull rods in isoelec., anionic, and polarized lipid bilayer membranes)

RN 335629-09-9 CAPLUS

CN 1,4,7,10,13-Pentaoxa-16-azacyclooctadecane, 16,16',16'',16''',16''',16'''

''-[[4,4'''''-bis(methylsulfonyl)[1,1':4',1'':4''',1''':4''',1''':4'''',1'''':4'''',1'''':4'''',1''''-octiphenyl]
2',2''',2''''',3''',3''''-hexayl]hexakis[oxy(1-oxo-2,1-ethanediyl)]]hexakis- (9CI) (CA INDEX NAME)

PAGE 1-A

## PAGE 2-A

## PAGE 3-A

RN 335629-19-1 CAPLUS
CN 1,4,7,10,13-Pentaoxa-16-azacyclooctadecane, 16,16',16'',16''',16'''',16''''
''-[[4-[(2-aminoethyl)sulfonyl]-4'''''-(methylthio)[1,1':4',1'':4'',1'''
:4''',1'''':4'''',1'''':4''''',1'''':4''''',1''''-octiphenyl]-

2',2''',2'''',3'',3''''-hexayl]hexakis[oxy(1-oxo-2,1-ethanediyl)]]hexakis- (9CI) (CA INDEX NAME)

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RN 335629-21-5 CAPLUS
CN 1,4,7,10,13-Pentaoxa-16-azacyclooctadecane, 16,16',16'',16''',16'''',16''''
''-[[4-[(2-aminoethyl)thio]-4''''''-(methylsulfonyl)[1,1':4',1'':4''',1'''
:4''',1'''':4'''',1'''':4''''',1'''':4''''',1'''''-octiphenyl]-
```

2',2''',2''''',3''',3'''''-hexayl]hexakis[oxy(1-oxo-2,1-ethanediyl)]]hexakis- (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 2-A

IT 335629-11-3P 335629-13-5P 335629-15-7P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(electrostatics of cell membrane recognition: structure and activity of

neutral and cationic rigid push-pull rods in isoelec., anionic, and polarized lipid bilayer membranes)

RN 335629-11-3 CAPLUS

CN Carbamic acid, [2-[[4'''''-'(methylsulfonyl)-2',2''',2'''',3'',3''''-hexakis[2-oxo-2-(1,4,7,10,13-pentaoxa-16-azacyclooctadec-16-yl)ethoxy][1,1':4',1'':4'',1''':4''',1''':4''',1''':4''',1''''-octiphenyl]-4-yl]sulfonyl]ethyl]-, 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

# 1,1-dimethylethyl ester (9CI) (CA INDEX NAME)

Patel

PAGE 1-A

PAGE 1-B

# IT 335629-23-7P

RL: SPN (Synthetic preparation); PREP (Preparation)
(electrostatics of cell membrane recognition: structure and activity of
neutral and cationic rigid push-pull rods in isoelec., anionic, and
polarized lipid bilayer membranes)

# PAGE 3-A

AB Design, synthesis, and structural and functional studies of rigid-rod ionophores of different axial electrostatic asymmetry are reported. The employed design strategy emphasized presence of (a) a rigid scaffold to minimize the conformational complexity, (b) a unimol. ion-conducting

pathway to minimize the suprastructural complexity and monitor the function, (c) an extended fluorophore to monitor structure, (d) variable axial rod dipole, and (e) variable terminal charges to create axial asymmetry. Studies in isoelec., anionic, and polarized bilayer membranes confirmed a general increase in activity of uncharged rigid push-pull rods in polarized bilayers. The similarly increased activity of cationic rigid push-pull rods with an electrostatic asymmetry comparable to that of  $\alpha$ -helical bee toxin melittin (pos. charge near neq. axial dipole terminus) is shown by fluorescence-depth quenching expts. to originate from the stabilization of transmembrane rod orientation by the membrane potential. The reduced activity of rigid push-pull rods having an electrostatic asymmetry comparable to that in  $\alpha$ -helical natural antibiotics (a pos. charge near the pos. axial dipole terminus) is shown by structural studies to originate from rod "ejection" by membrane potentials comparable to that found in mammalian plasma membranes. structural evidence for cell membrane recognition by asym. rods is unprecedented and of possible practical importance with regard to antibiotic resistance.

ALL CITATIONS AVAILABLE IN THE RE FORMAT

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RE.CNT 54
             THERE ARE 54 CITED REFERENCES AVAILABLE FOR THIS RECORD
L3
    ANSWER 17 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
    2000:790480 CAPLUS
AN
    133:335232
DN
ΤI
    Preparation of pyrazoles as antiinflammatory agents
    Lohray, Vidya Bhushan; Sunil, Kumar Singh; Akella, Venkateswarlu; Lohray,
IN
    Braj Bhushan; Pamulapati, Ganapathi Reddy; Ramanujam, Rajagopalan;
    Parimal, Misra
    Reddy's Research Foundation, India
PA
SO
    PCT Int. Appl., 134 pp.
    CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 1
    PATENT NO.
                      KIND
                              DATE
                                         APPLICATION NO. DATE
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                                          ______
                              20001109 WO 2000-IB556
PΙ
    WO 2000066562
                       A1
                                                               20000502
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            IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA,
            MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
            SK, SL, TJ
        RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,
            DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF,
            CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                                          IN 1999-MA508
                                                             A 19990503
OS
    MARPAT 133:335232
IT
    304648-26-8P
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of pyrazoles as antiinflammatory agents)

RN304648-26-8 CAPLUS

CN Benzenesulfonamide, 4-[5-[1,1'-biphenyl]-4-yl-3-(trifluoromethyl)-1Hpyrazol-1-yl]-2-(hydroxymethyl)- (9CI) (CA INDEX NAME)

GΙ

$$H_2N$$
 $H_2N$ 
 $H_2N$ 
 $H_2N$ 
 $H_3$ 
 $H_2N$ 
 $H_3$ 
 $H_4$ 
 $H_5$ 
 $H_5$ 
 $H_5$ 
 $H_6$ 
 $H_6$ 

AB The title compds. [I; R1 = NH2, alkyl, alkylamino, etc.; R2 = CN, NO2, N3, etc.; R3 = H, halo, OH, etc.; R4-R6 = H, halo, OH, etc.; m = 0-2], useful for the treatment and/or prophylaxis of diseases of cyclooxygenase, more particularly COX-2, were prepared E.g., a multi-step synthesis of the pyrazole II which showed IC50 of 0.56  $\pm$  0.03 (100  $\mu$ M) against COX-2 vs. IC50 of 264  $\pm$  0.5 (100  $\mu$ M) against COX-1, was given.

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2000:756693 CAPLUS

DN 133:309896

TI Preparation of sulfonamide derivatives having oxadiazole rings as matrix metalloprotease inhibitors

IN Watanabe, Fumihiko; Tamura, Yoshinori; Fujii, Yasuhiko

PA Shionogi & Co., Ltd., Japan

SO PCT Int. Appl., 47 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE

Patel

PI	WO 2000	<b>A</b> 1		2000	1026	WO 2000-JP2404					20000413						
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os	MARPAT	133:3	0989	16													

OS MARPAT 133:309896

IT 301835-77-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of sulfonamide derivs. having oxadiazole rings as matrix metalloprotease inhibitors)

RN 301835-77-8 CAPLUS

CN D-Phenylalanine, N-[[4-[5-(4-cyclohexylphenyl)-1,2,4-oxadiazol-3-yl]phenyl]sulfonyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

GΙ

$$R^3$$
 $N$ 
 $X$ 
 $SO_2-N$ 
 $R^2$ 
 $CO-Y$ 

The title compds. I [R1 and R2 are each independently hydrogen, optionally substituted lower alkyl, or the like; R3 is optionally substituted aryl, optionally substituted heteroaryl, or the like; X is CH:CH, O, or S; and Y is NHOH, hydroxyl, or lower alkyloxyl are prepared. The title compound II in vitro showed IC50 of 0.067  $\mu$ M against MMP-2. Formulations are given.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2000:742084 CAPLUS
- DN 133:309836
- TI Preparation of 4,5-diaryl-3(2H)-furanones as cyclooxygenase-2 inhibitors
- IN Shin, Song Seok; Noh, Min-Soo; Byun, Young Joo; Choi, Jin Kyu; Kim, Jin Kwan; Lim, Kyung Min; Kim, Ji Young; Choi, Young Hoon; Ha, Jun-Yong; Lee, Ki-Wha; Moh, Joo Hyun; Jeong, Yeon Su; Chung, Shin; Joo, Yung Hyup; Lee, Chang Hoon; Kang, Seon Hwa; Park, Young-Ho; Yi, Jung Bum
- PA Pacific Corporation, S. Korea
- SO PCT Int. Appl., 240 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

ran.	PATENT NO.	KIND DATE	APPLICATION NO.	DATE				
PΙ	WO 2000061571	A1 20001019	WO 2000-KR339	20000412				
	W: AE, AG, A		BA, BB, BG, BR, BY,					
	CU, CZ, D	C, DK, DM, DZ, EE,	ES, FI, GB, GD, GE, G	GH, GM, HR, HU,				
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	LV, MA, M	, MG, MK, MN, MW,	MX, NO, NZ, PL, PT, 1	RO, RU, SD, SE,				
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	DK, ES, F	, FR, GB, GR, IE,	IT, LU, MC, NL, PT, S	SE, BF, BJ, CF,				
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			KR 1999-29779	A 19990722				
			KR 1999-39043	A 19990913				
			KR 2000-16866	A 20000331				
			KR 2000-17647	A 20000404				
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	EP 1109799	B1 20031217						
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				KR 2000-17647	A	20000404
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				KR 2000-17647	A	20000404
				WO 2000-KR339	W	20000412
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				KR 2000-16866	A	20000331
				KR 2000-17647	Α	20000404
				WO 2000-KR339	W	20000412
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				KR 1999-13170	Α	19990414
				KR 1999-29779	Α	19990722

KR 1999-39043 A 19990913 KR 2000-16866 A 20000331 KR 2000-17647 A 20000404 WO 2000-KR339 W 20000412

OS MARPAT 133:309836

IT 301690-35-7P 301691-71-4P 301693-02-7P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of 4,5-diaryl-3(2H)-furanones as cyclooxygenase-2 inhibitors)

RN 301690-35-7 CAPLUS

CN 3(2H)-Furanone, 4-(2-fluoro[1,1'-biphenyl]-4-yl)-2,2-dimethyl-5-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)

RN 301691-71-4 CAPLUS

CN 3(2H)-Furanone, 4-[1,1'-biphenyl]-4-yl-2,2-dimethyl-5-[4-(methylsulfonyl)phenyl]- (9CI) (CA INDEX NAME)

RN 301693-02-7 CAPLUS

CN Benzenesulfonamide, 4-[3-(2-fluoro[1,1'-biphenyl]-4-yl)-4,5-dihydro-5,5-dimethyl-4-oxo-2-furanyl]- (9CI) (CA INDEX NAME)

GΙ

$$X$$

$$AR$$

$$Q$$

$$Z$$

$$R^{1}$$

$$R^{2}$$

$$I$$

AB The title compds. [I; X = halo, H, alkyl; Y = alkylsulfonyl, aminosulfonyl, alkylsulfinyl, etc.; Z = O, S; R1, R2 = alkyl; R1 and R2, taken together with the 2-position carbon atom of 3(2H)-furanone ring, form a 4-6 membered aliphatic or heterocyclic ring; AR = (un)substituted aryl of 5-10 atoms] which inhibit strongly and selectively COX-2 over COX-1 (data given), and are useful in treating inflammation, inflammation-associated disorders, and COX-2 mediated diseases, were prepared Thus, reacting 4-bromo-2,2-dimethyl-5-{4-(methylsulfonyl)phenyl}-3(2H)-furanone (preparation given) with 3-fluorobenzeneboronic acid in the presence of Pd(PPh3)4 and saturated aqueous NaHCO3 in PhMe and EtOH afforded I [X = H; Y =

SO2Me; Z = 0; R1, R2 = Me; AR = 3-FC6H4] which showed IC50 of 0.02  $\mu$ g/mL against COX-2 vs. IC50 of 5  $\mu$ g/mL against COX-1. RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s 13 and prostagladin L4 0 L3 AND PROSTAGLADIN

=> log y
COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)
SINCE FILE TOTAL